

REMARKS/ARGUMENTS

This application is a solution to power an electric vehicle (30) by a power source (10) whose power is significantly lower than the nominal power of the traction chain (70) of said vehicle.

For example, it allows powering a traction chain (70) of 800kW nominal power, with a 150kW external power source (10) (See page 9 - line 21 to page 11 - line 36 and Figures 2a, 2b and 2c).

While the said traction chain of the vehicle consumes no or little energy (e.g. cruising on flat ground or stopped), the onboard power supply (80) recharges the onboard storage means(60) using the external power source (10).

While breaking, the onboard power supply (80) recharges the onboard storage means(60) using the external power supply source (10) and the energy produced during breaking.

When said vehicle (30) needs energy for starting or climbing hills, the onboard power supply (80) discharges the onboard storage means (60), which adds to that of the external power source (10) to power the traction chain (70)

Analysis of documents cited:

1. Document Kurtz (FR2825666)

The weight of the vehicle is about 10 tons maximum due to the limitation of its power supply which limits the power of the traction chain of said vehicle.

Although anyone skilled in the art is aware of onboard storage means such as super-capacitors (see page 2 – line 28 to 31 and page 3 –line 29 to page 4 – line 9), the inventor did not think of using on board energy storage to have a higher power than the external power that would allow to exceed the limit of ten tons for the vehicle.

2. Document Blackman (US3637956)

The weight of the vehicle, a car, is a few tons maximum. That said vehicle is powered by an external power supply whose power exceeds that of its traction chain.

Indeed, when the external power supply is present, it provides power to the vehicle and simultaneously recharges an onboard storage means (battery).

The external power source and onboard storage means are used alternately. At no time do they act simultaneously to feed the traction chain (see col.6 lines 18 to 21).

3. Batisse document (US6557476)

Here again the power of the external power supply is greater than the power of the traction chain of the vehicle. Once the vehicle started, the external power supply is cut and the onboard storage means ensure the supply of the vehicle in a similar manner to "Blackman." In this case, the onboard storage means allows the recovery of braking energy but without reducing the amount of the external power supply (see col. 3 line 65 to col. 4 line 5).

In conclusion, none of the documents cited describes a solution to power an electric vehicle by a power source whose power is significantly lower than the power of the traction chain of said vehicle.

I hope this answers your questions and I have modified the claims accordingly.

Best regards,

Herve AFRIAT